

#### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the above-identified application.

##### Listing of Claims:

1. (Currently amended) A method for assessing ~~predisposition of a human subject for predisposition to a mental disorder phenotype having an association with an at-risk allele of a gene that encodes monoamine oxidase A enzyme, the association being conditioned by a pathogenic environmental risk factor status condition, the at-risk allele characterized by a low activity level of the enzyme in the brain of the subject selected from the group consisting of a conduct disorder, violent behavior and antisocial behavior~~, the method comprising the steps of:

~~determining whether the subject carries one or more copies of an at-risk allele a two- or three-repeat allele of a variable number tandem repeat polymorphism within a gene encoding human monoamine oxidase A enzyme, wherein a locus of the gene is amplified by~~  
SEQ ID NO:1 and SEQ ID NO:2;

~~determining whether the subject has experienced, or is at risk of experiencing, the environmental risk factor childhood maltreatment; and~~

~~concluding that the subject is predisposed to the phenotype if the subject carries the at-risk two- or three-repeat allele and has experienced, or is at risk of experiencing, the environmental risk factor childhood maltreatment.~~

2. (Currently amended) The method of Claim 1 wherein the subject carries the ~~at-risk allele~~ two or three repeat allele.

3. (Currently amended) The method of Claim 1 wherein the subject has experienced, or is at risk of experiencing, ~~the environmental risk factor childhood maltreatment~~.

4.-5. (Canceled)

6. (Currently amended) The method of Claim 1 wherein the ~~pathogenic~~  
~~environmental risk factor~~ childhood maltreatment is selected from the group consisting of  
exposure to psychological trauma[.], and exposure to psychosocial stress, ~~exposure to an~~  
~~unhealthy diet, an infectious agent, exposure to a toxic agent, experience with a pharmacological~~  
~~agent, a medical trauma, and an injury.~~

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7.-8. (Canceled)

9. (Original) The method of Claim 1 further comprising the step of counseling the  
subject to pursue or avoid a particular type of employment.

10. (Currently amended) The method of Claim 1 further comprising the step of  
counseling the subject to avoid the ~~environmental risk factor~~ childhood maltreatment.

11. (Original) The method of Claim 1 further comprising the step of prescribing a  
therapy selected from the group consisting of psychological therapy and pharmaceutical therapy.

12.-26. (Canceled)